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Abstract

This study aims to provide a framework for assessing and modelling behavioural changes in a prison therapeutic community. A behavioural checklist able to monitor both positive and negative behaviours throughout the course of therapy, paying particular attention to offence-paralleling behaviours, was devised. Content analysis of therapy notes on n=68 residents identified 35 variables. The study investigated the hypothesis that it is possible to model behavioural change over the course of therapy using an action systems framework. This framework has been used to classify different forms of anti-social behaviour (Fritzon & Brun, 2005; Miller & Fritzon, in press) and pro-social behaviour (Shye, 1985). The four modes of action system functioning were consistently identified during therapy using Smallest Space Analysis. Paired sample t-tests of residents at the beginning and end periods of therapy suggested that residents progress from the antisocial to pro-social behaviours from within each mode. Overall, findings support the prison therapeutic community treatment model, as well as demonstrating the appropriateness of the action systems framework for understanding the nature and function of positive and negative therapeutic behaviours.

Keywords: Systems Theory, Therapeutic Community, Behavioural Change, Prison, Multidimensional Scaling

Understanding Change in A Therapeutic Community: An Action Systems Approach

Since the opening of HM Prison Grendon Underwood in 1962, therapeutic communities (TCs) within the British Prison Service have passed through "cycles of popularity" (Woodward, 1999, pp.162). The development of new prison TCs reflect renewed interest in this treatment modality, spurred by a growing body of research demonstrating that TCs can be successful in a prison setting (see Lees, Manning & Rawlings, 2004 for a review). Despite this, clarifying the mechanisms of therapeutic change, specifying their measurement and their relationship to the specific treatment needs of offenders has been neglected. The majority of TC based studies so far have focused on reconviction rates as a measure of therapeutic effectiveness (Marshall, 1997). However, reconviction-based measures do not consider non-criminal aspects of interpersonal functioning that might also be a significant target for intervention. Behaviours like interpersonal hostility and exploitation, for example, as risk factors for future offending, are also legitimate treatment targets for offenders, but are sometimes neglected (Jones, 2004). What is required is some means of both assessing and modelling changes in dynamic risk at various stages during treatment by looking at behaviour. It is the aim of this paper to provide such a unitary framework.

Change in the Therapeutic Community

The TC has been described as a "living-learning situation" (Cullen, 1994, pp.239) where everything that happens between members, particularly in crisis situations, is used as a learning opportunity. It is accepted that prisoners must be allowed to behave 'usually', rather than as 'model prisoners', so creating the possibility for "offence paralleling" behaviour which can provide the material for group therapy (Kennard, 2004). TC residents identify resources such as self-determination and willingness to learn, as well as the ability to negotiate complex relationships with other community members as important aspects of the TC experience (Miller, Sees & Brown, 2006)

Within a prison TC, therapeutic change is postulated to come about during the course of small group therapy. Small groups of up to eight to ten residents meet between three and five times a week, focusing on residents' offending and non-offending experiences. Lewis (1997) describes working through the 'repetitive re-enactment' of persistent patterns of thinking, feeling and behaving, which have their origins in disturbed early relationships, as forming the cornerstone of small group therapy in the TC. Like other researchers, Miller et al. (2006) found small therapy groups to be an especially valuable element of the TC experience (Dunstan & Birch, 2004; Manning, 1976, 1989). The premise is that "a man's behaviour in the group can be observed and reacted to, and that his conduct in this context reflects, at least to some extent, his conduct elsewhere" (Genders & Player, 1995, p.88). For this reason, this study will focus on changes in behaviours during small group therapy sessions as a way of assessing and describing change within the TC.

Jones (2000) argues that there is a need to look at *process variables* (e.g. Thornton, 1987) and the *model of change* underlying the intervention in order to validate the assertion that *offence-relevant* change has taken place. This can be done by assessing reductions in offence paralleling behaviours (OPBs) exhibited in an institutional context (Jones 2000, 2004). It should be noted here that offending behaviour, and consequently offence paralleling behaviour, is not just a single event but a culmination of a process or chain of events. Consequently, it is possible to have OPBs that are not obviously similar to the offence, in terms of the eventual action taken, but which have similarities in terms of "the *pattern of behaviours, thoughts and emotions* leading up to the offence" (Jones, 2004, p. 39). As such, it has much in common with the idea of an offence cycle, as well as with the literature on personality disorder, which highlights the way in which some people find themselves repeating the same self- or other-harming behaviour over time. OPBs often become apparent in treatment settings. Clark et al (1993) found that behaviour patterns similar to those associated with the offence were repeated throughout the sentence. Similar findings were obtained by Zamble & Porporino (1990) in their longitudinal study in Canadian prisons. They found that prisoners responded to a range of prison difficulties in a similar way as they had to problems outside prison.

The application of an action systems framework to therapeutic change

Shine & Morris (2000) point out the need for TCs to develop theoretical models of change which reflect the distinctive nature of this treatment modality. Murray (1938) and Moos' (1975) conceptualisation of the dual process of personal needs

and ‘environmental press’ in relation to community settings, and Blackburn’s (1998) work looking at how different adaptation strategies prove attractive to individuals with different interpersonal styles, make it clear that, when looking at change within a TC setting, it is vital to recognise the impact of *both* the environment *and* more idiosyncratic factors in determining changes in residents’ behavioural responses.

The action systems model, originally developed by Shye (1985), provides a unified basis for understanding the way in which a person’s actions are aimed at modifying some aspect of his external or internal world. The roots of Shye’s model can be found in a basic tenet of personality theory: that whilst all individuals’ behaviour naturally varies from occasion to occasion, there is a core of consistency which defines an individual’s ‘true nature’ or ‘style’ (Matthews & Deary, 1998). However, this ‘consistency’ in behavioural style will be moderated by the source and target of the action. Shye (1985) has illustrated in a number of studies that the combination of a) the internal and external sources of action with b) the agent or environment as the targets of the action, gives rise to four basic modes of functioning actions systems: *adaptive, expressive, integrative and conservative.*

The *adaptive* mode is one in which external events are the source of interaction or conflict, and the actor or system (in this case the resident) reacts by attempting to change aspects of the external circumstances (environmental or social). This results in actions where there is observable instrumentality. In the *expressive* mode the individual is demonstrating internal psychological aspects to the external world – Shye (1985) refers to a system exercising its “power and influence on its

surroundings" by trying to create a "reality which reflects in one way or another the system's own characteristics" (p. 102). The *integrative* mode represents adjustments taking place within the systems themselves. The source of the conflict is internal, and the resident acts to change his internal state. This can result in highly emotionally charged acts aimed at alleviating distress. The *conservative* mode is one in which the source of conflict is external, but changes in the psychological state of the resident (internal) are sought. These four modes of acting derived from two primary facets have found to be distinguishable in an analysis of criminal and non-criminal activities, with individuals operating in these different modes being found to have appropriately distinct personal characteristics as predicted by the model (e.g. Fritzon et al 2001, Fritzon & Brun, 2005; Miller & Fritzon, in press). However, an action systems framework has not yet being used to look at either more positive aspects of behaviour in criminals or therapeutic change.

Summary of research aims

The underlying aim is to create a behavioural checklist which can be used to monitor the occurrence of both positive and negative behaviours throughout the course of therapy, paying particular attention to emergent offence-paralleling behaviours. This will be done by using action system theory to frame behavioural change by:

a) Assessing whether the four modes of action system functioning can be identified by analysing behaviours that occur in therapy sessions

b) Assessing whether an action system model of therapeutic behaviour is evident over the course of time.

c) Assessing whether over the course of therapy there is a behavioural or modal shift (i.e. do residents either start to function in a different modality, or do they stay within one mode and begin to exhibit more positive examples of behaviour).

Method

2.1 Sample

Participants were 68 male residents at HMP Dovegate TC. Participants were drawn from all four therapy groups operating within one unit of the TC. 30 participants (44%) completed at least 18 months of therapy, the recommended time period for optimum change (Genders & Player, 1995), with the majority of participants reaching the year stage (63%). The age of participants ranged from 21-66 years of age, with a mean age of 34 years. Thirty eight percent of the sample were serving life sentences, and the majority of participants had a lengthy criminal history, with the mean number of previous convictions being 13. Information on index offence (IO) was available for all but 4 participants, with robbery and murder accounting for over half the cases (55%). Sexual crimes accounted for a further 7%, arson 2%, and fraud related offences for just under 1%. The remaining IOs consisted of other violence or drug related offences.

2.2 Procedure

The behavioural checklist was created using staff case notes, employing an iterative content analysis procedure (Krippendorf, 1980). Even though staff notes included session content and behavioural observations, they were not designed to be used as a research instrument. Nevertheless it was possible to obtain a fairly accurate overview of how residents behaved in each session and this type of inductive classification of open-ended material has been used by a number of

researchers to identify therapeutic behaviours (e.g. Wagner, 2003; Richards & Lonborg, 1996).

The checklist was clearly defined (see Table 1), with a thorough and unambiguous explanation of which behaviours should be recorded under each item (as recommended in Wilkinson, 2000). Inter-rater reliability was then established between two judges by using the refined checklist to code the behaviours of six participants over a period of two months. The checklist was then used to record the behaviours with presence (1) or absence (0) scoring.

2.3 Analytic strategy

The first stage of analysis was to identify themes relating to the hypothesised action system structure within coded behaviours. Each participant was thus given a frequency score for each behaviour for *the entirety of their time in therapy*. These frequency scores were then inputted into a data matrix and subjected to Smallest Space Analysis (SSA), which is one of a series of Guttman-Lingoes multi-dimensional scaling (MDS) procedures (Lingoes, 1973). MDS has been shown to be particularly useful in revealing the underlying structure in qualitative data (Wilson & Hammond, 2000). The SSA maps the location of each item in a multidimensional space using, in this case Pearson correlation coefficients. This means if item *x* is highly correlated with item *y*, then they will be situated close together on the plot, subsequently revealing conceptually meaningful groupings or regions (Guttman, 1968). An indication of how well the spatial representation corresponds to the correlation matrix is called 'the coefficient of alienation' (Borg

& Lingoes, 1987), with smaller values indicating a better solution. Zero is a perfect fit, with most acceptable scores ranging from 0.15 to 0.24 (Donald, 1995).

The second stage of analysis was to assess whether the action system model of therapeutic behaviours is consistent over time by examining the frequency of the behaviours within regions as therapy progresses. Another SSA comprising each individuals' score for each of the four action systems modes at six different time points (with three-monthly intervals between each time point) was run. Each individual had a maximum of 24 different scores, one for each mode at each time point. If an individual did not stay in therapy for 18 months, and as a result did not have a score for each time point, data was coded as missing.

The third stage of analysis focused on whether there was a move from non-functional to functional behaviours within modes as therapy progresses further The behavioural frequency scores for times one and six for the 30 participants completing 18 months of therapy were calculated and paired-sample t-tests used to test for significance.

Results

SSA of Therapeutic Behaviours

Figure 1 shows the projection of the first two vectors of the three dimensional space. Each variable depicts a therapeutic behaviour (as defined in Table 1). The coefficient

of alienation was 0.20, which is acceptable, although it indicates some distortion of the plot (see Donald, 1995).

[please insert figure 1]

The closer the variables are together, the more likely it is that the two actions will co-occur in an individual's behavioural repertoire. For example, the proximity of 'avoids' (actively seeks to avoid engaging in therapy) to '48hrs' (publicly threatening to apply to leave the TC by giving in one's 48 hour notice) suggests that a person who avoids participating in the therapeutic process is also likely to threaten to leave therapy altogether. By contrast, it is unlikely that such a person will also become particularly emotional in therapy ('distress' or 'cry') because of its distance from the other variables.

As the distances between the plotted behaviours reflect the likelihood of their co-occurrence, a regional split is a strong indication that the variables within a spatial region are strongly interrelated and reflect a common psychological process or theme. As hypothesised, the SSA in Figure 1 shows that the behaviours of residents can be differentiated in accordance with the action system modes.

Expressive Mode

This mode of functioning involves an external acting out of internal psychological processes. The variables indicative of the expressive mode are located in the upper region of Figure 1: cry, accept, distress, confess, lie, argue, tense, gesture, disagree

and dramatic outburst (drama). These variables gave a Crohnbach α of .75, indicating a very strong level of scale reliability. In-keeping with previous findings (e.g. Fritzon et al., 2001; Miller & Fritzon, in press) it can be seen that the expressive mode describes a communicative gesture that is a impulsive in nature, manifesting itself in dramatic outbursts, gesticulating and crying. The inclusion of variables such as 'argue' demonstrate both an internal source for actions, in this case feelings of frustration with others' viewpoints; and an external target for actions, in this case a desire to moderate those viewpoints. Within the clinical literature Gardner & Cowdry (1985) suggest that anger at others may result from a perceived failure on someone's part to respond in a caring or supportive way. This explains why 'argue' co-occurs with variables such as 'disagree' (with feedback), 'tense', and 'distress'. It is possible that residents whose behaviours are characterised by this region feel that feedback is uncaring and unsupportive, and react to this by both contesting the feedback and becoming visibly upset, in an attempt to make the giver reconsider their viewpoint. The inclusion of both 'accept' and 'disagree' (with feedback) and 'confess' and 'lie' may seem confusing at first, as they appear to be polar opposites, but it may be that it is these variables which can be expected to fluctuate the most over time (that is, the occurrence of 'disagree' decreases over therapy as 'accept' increases). As residents progress into a more functional mode of interaction, it is hoped that they are able to respond to constructive criticism in a more positive manner, accepting instead of disagreeing with feedback; and that the desire to manipulate others' opinions of them by lying is replaced with a desire for others to see them as they really are through the confessing of the true nature of events.

Integrative Mode

This mode of functioning is most clearly defined by variables which reflect an internal source of conflict or motivation, coupled with an internal target of the action. This sub-group of behaviours are found on the upper right hand side of Figure 1: support, catharsis, paternal, grandiose, anger, contribute, instil and advice. These variables gave a Crohnbach α of .78, again showing a high level of reliability. Whilst it is clear that some of these variables, such as catharsis, have both an internal source (the desire to vent a build-up of feeling), and an internal target (the relief felt after such an 'unburdening'), it is perhaps not immediately obvious why behaviours which involve others, such as 'support' or 'advice', are found here. However, the presence of these behaviours is in-keeping with Shye's (1985) findings, that an essential aim of the integrative system is 'gratification'. That is, a compatibility between feeling and behaviour attainable through systematic expression whenever internal pressures mount. Shye identified a desire within integrative individuals both to see themselves in a positive light and to meet others' expectations. Variables within this region should thus reflect the internal harmony of the participants, having internalised others opinions and expectations. Whilst the integrative mode has both an internal source and target, there is nevertheless a strong emphasis on maintaining personal relations, and a desire to "feel respected" (pp.136). This can be typified by variables such as 'support', 'paternal', 'instil', 'contribute' and, slightly less positively, 'grandiose'. 'Anger' is a good example of the more negative aspects of the integrative mode here, as it represents *dis*harmony within the individual.

Conservative Mode

The conservative mode is one in which the source of conflict is external, but changes to the psychological state of the resident are sought. Behaviours in this mode can be seen as a way of re-addressing the emotions that are triggered by an external circumstance. The variables representing this mode are: peace (making), anti-staff, blame, questions, apologise, rant, (asks for) help, dominate, inappropriate (feedback given) and unauthorised absence. These variables gave a Crohnbach α of .69. The inclusion of the variable 'questions' reveals a positive manifestation of the conservative mode; in response to another's 'story' (external source) a conservative individual asks questions in order to satisfy his own curiosity (internal target). 'Inappropriate' (feedback given) on the other hand represents a less positive manifestation of the conservative mode; in response to another's problem (external source) a conservative individual gives advice which reflects and confirms his *own* worldview (internal target), and does not attempt to address the best interests of the other.

Shye (1985) has linked the conservative mode of functioning with a desire to "avoid tension factors in everyday life" (pp.130), and when functioning in this mode the individual will often act on a source of frustration in order to feel relief or justification. This is compatible variables such as 'peace' and 'apologise' in this region, with the individual acting in a positive way to remove possible sources of tension in order to feel relief; and also variables such as 'rant' and 'antistaff', with the individual responding in a negative, aggressive way in order to try and alleviate feelings of frustration with the outside environment. In offence behaviour SSAs,

the conservative mode has been linked to retaliation and revenge (e.g. Almond et al, 2005), and this type of behaviour can be seen in the inclusion of the variable 'blame': the individual feels hard-done-by by external events and wishes to redress the internal conflict this has brought about by blaming others and seeking to punish them.

Adaptive Mode

The adaptive mode is one in which external events are the source of the interaction or conflict, and the actor (in this case the resident) reacts by attempting to change aspects of their external circumstances (environmental or social). Shye (1985) has defined this mode as an attempt to bring about compatibility between aspirations and the environment and to free oneself from threats. Variables relating to this mode are found in the lower left hand side of Figure 1 and are: withdrawn, distance, fidget, leave, disrupt, avoids and 48hrs, giving a Crohnbach α of .63. It is clear that these provide good examples of acting within the adaptive mode insomuch as external sources of conflict (therapy) are resolved by pro-active attempts to either physically distance oneself from the source of tension, by actually leaving the therapy group (leave), or else by moving one's chair out of the circle (distance), or indicating a *desire* to physically leave (fidget); or dissipate the source of tension by being socially disruptive. It should be noted that there are very few 'positive' behaviours in this region. As such, a decrease in all exhibited adaptive behaviours would be expected, it might also be expected that residents within this region perhaps shift modes as therapy progresses, or else are best defined by a combination of modes.

SSA of Therapeutic Behavioural Modes Over Time

The below figure shows the projection of the first two vectors of the three dimensional space. The plot has a coefficient alienation of 0.16, indicating a very good degree of fit.

[please insert figure 2]

It is apparent from Figure 2 that the action systems model holds throughout the course of therapy. Four distinct regions can be delineated, with adaptive behaviours in the bottom left hand side of the figure, conservative behaviours predominantly in the bottom right, integrative behaviours largely in the top right hand side and expressive behaviours in the top left hand side.

When the SSA is partitioned into these four regions, the nature of the shifts between integrative and expressive and conservative behaviours can be more clearly seen. For example, the proximity of C1 to I2 suggests that early on in therapy, conservative behaviours co-occur with integrative behaviours. Similarly the (relative) proximity of E5 to I4 suggests that in the latter stages of therapy, expressive behaviours tend to co-occur with integrative behaviours. It is interesting that within the adaptive, integrative and expressive regions, time one scores are situated very close to time six scores, suggesting that the frequency of behaviours in these modes runs full circle throughout therapy. What one would hope to see, then, is a shift in the *content* of behaviours inside each mode, that is, a shift from the dysfunctional to the functional.

Direction of Observed Behavioural Change

The behavioural frequency scores for times one and six for the 30 participants completing 18 months of therapy suggest a trend for the reduction of dysfunctional behaviours (such as distance, disrupt, anger, disagreeing with feedback and inappropriate) and the increase of functional behaviours (such as advice, accepting feedback and instilling hope). These results are represented graphically in figures 3,4,5 and 6). Paired-sample t-tests were then run on the dataset to ascertain whether any of these trends were significant at a statistical level (see Table 2). The level of significance was set *a priori* at $p<.05$. However, as the study contained 35 independent contrasts of the dependent variable behavioural frequency scores, greatly increasing the risk of committing a Type I error, the alpha was also adjusted to 0.005, and behavioural frequency variables were tested at $p<.005$. Results significant at the .05 level are still however listed because given the current small sample size and the hope of future research trends are still worthy of attention.

Adaptive

[please insert figure 3]

As expected, nearly all behaviours from the adaptive mode decreased over the course of therapy (with the exception of 'leave'). These decreases were statistically significant under the *a priori* level, and approaching significance under

the corrected level, in the case of distance (t=2.155, df=29, p=0.04); withdrawn (t=2.305, df=29, p=0.029); and avoids (t=2.219, df=29, p=0.034).

Expressive

[please insert figure 4]

As predicted, there is a decrease in both 'disagree' and 'lie' from the expressive mode, coupled with an increase in 'accept' (with 'confess' remaining relatively stable). There is also an increase is the incidence of 'distress' (t=-2.352, df=29, p=0.026); whilst this may at first seem a 'negative' change, it should be noted that many residents find it hard to connect emotionally with their index offences and criminal history at the beginning of therapy, often coming across as cold and emotionless. In many ways, the increased ability to display emotions both to themselves and others can be viewed as a positive change. 'Tense', on the other hand, has decreased (t=2.399, df=29, p=0.023), indicating a more relaxed approach towards the therapeutic process at this point. Finally, there is a significant increase in 'argue' (t=-3.154, df=29, p=0.004). Again, whilst on a superficial level this may not appear to be a move towards functional behaviour, it is important to note that incidents of 'argue' did not involve residents becoming visibly angry, or aggressive and threatening in their language or behaviour (this was coded as 'anger'). Therefore this increase could be viewed as residents becoming more confident and assertive as therapy progresses, and developing the ability to express their opinions in a non-violent, pro-social manner.

Conservative

[please insert figure 5]

A similar pattern emerges in the conservative region, with both ‘inappropriate’ and (the highly criminogenic) ‘antistaff’ decreasing as predicted. ‘Dominate’ (t=2.122, df=29, p=0.043) and ‘blame’ (t=2.875, df=29, p=0.008) both decrease significantly, and ‘questions’ (t=-2.104, df=29, p=0.044) increases. Finally, an increase can also be seen in the occurrence of ‘unauthorised absence’ (t=-2.404, df=29, p=0.023). It is possible that this indicates a decision on the residents’ part that the therapeutic process is complete, and so the need to attend every session is not as great as it was at the beginning of therapy.

Integrative

[please insert figure 6]

The integrative region continues the trend for ‘positive’ behavioural shifts. There is a decrease in ‘grandiose’ (t=2.125, df=29, p=0.042), coupled with an increase in ‘advice’ (t=-2.188, df=29, p=0.037). There is also a significant decrease in ‘contribute’ (t=3.540, df=29, p=0.001). Whilst contributing in itself is not a dysfunctional therapeutic behaviour, it is possible to speculate that this decrease indicates an increased capacity for listening to others.

Discussion

The aim of the study was to establish whether the action systems framework could be used to model behavioural change during small group therapy groups within a prison TC. The analysis revealed that thematic groupings of behaviours occurred that could be conceptually understood as representing the four modes of action systems functioning: expressive, conservative, integrative and adaptive. The underlying content of these was similar to that identified by previous research (Fritzon et al, 2001; Miller and Fritzon, in press)

The expressive behaviours could be understood as communicative in nature, as well as somewhat attention seeking. The adaptive behaviours were aimed at removing perceived threats to the individual originating from the environment. The conservative mode contained behaviours aimed at redressing emotions triggered by external events. Finally, integrative behaviours tended to arise as a result of internal desires or conflicts, primarily associated with self esteem. The study went on to look at behavioural change by classifying the individual's predominate mode of operating at a series of six discrete time periods. The action systems model was found to hold, in that behaviours within each of the four modes co-occurred across time. Finally, t-tests were run on the behavioural frequency scores at time one and time six for the thirty participants who completed the full eighteen months of therapy. They showed that a shift from dysfunctional to functional behaviour within each mode, as was hypothesised.

Practical Implications

The construction of a behavioural checklist based exclusively on therapeutic behaviours, taking into account both 'negative' and 'positive' behaviours, will provide both TC staff and future researchers with a way of quantifying therapeutic change. This is useful, as previous behavioural indices have tended to focus on general wing behaviours, and to only code for incidences of 'problematic' behaviours (Hobson et al, 2000).

The application of the action systems framework to therapeutic behaviours also has many practical implications. One of the primary advantages of this framework is the way in which it can facilitate an understanding of the underlying processes that give rise to behaviours. Consequently, the findings from this study can be applied to the antecedents, process, and prognosis of therapy.

Previous research (e.g. Fritzon et al, 2001; Miller & Fritzon, in press) has sought to identify the function of criminogenic behaviours for individuals, and to then direct treatment at challenging the individuals' view of themselves and their intrapersonal behaviour. In this instance, it is of particular importance that TC staff identify any behaviour that represents a shift away from an offence-related lifestyle and towards a positive lifestyle, and reinforce, validate and encourage it (Wanigarante et al, 1990; Ward, 2002). For example, it has been shown, both in this study and in the literature, that individuals in the conservative mode exhibit behaviours aimed at alleviating individual or environmentally induced frustrations. This study has shown how residents can alleviate these frustrations in either an aggressive (e.g. by

ranting, being anti-staff, blaming others) or pro-social way (e.g. by acting as peace-maker in a difficult situation, by apologising to the group to diffuse general discontent). Therapy should aim to identify an individual's mode of functioning, and then specifically attempt to encourage the individual to deal with interpersonal situations in a more positive manner. The identification of the source and target of an individuals' behaviour means that this encouragement can be specifically tailored to meet the interpersonal style of the individual, rather than the employment of generic therapeutic interventions.

As mentioned, the classification of residents into a particular mode can also serve to illuminate matters surrounding both the antecedents and prognosis of therapy. For example, as discussed earlier, residents acting in the conservative and adaptive modes are likely to have been motivated by *external* sources to participate in therapy. This is supported by findings from the wider literature. For example, the behaviours of residents functioning within the conservative mode bear a strong resemblance to those of clients in McConnaughy et al's (1983) '*Reluctance*' profile. McConnaughy et al identified these clients as being primarily motivated to engage in therapy by *external* factors, rather than internal choices to change. As such they were considered as being of high risk of dropping out of therapy, and of exhibiting a great deal of denial and reluctance to change. Similarly, the behaviours of residents functioning within the adaptive mode are very similar to those of the group that Frost & Connolly (2004) classified as '*evasive*'. These offenders indicated ambivalence towards intervention and attempted to avoid negative evaluation throughout the therapy session, sometimes resorting to "a range of subterfuges" (pp. 370). At the peak of their discomfort these offenders

often tried to 'escape' the therapy session, either physically or symbolically. This suggests that residents displaying conservative and adaptive behaviours should be encouraged to *internalise* the external motivators to participate in therapy in order to produce a behavioural shift. It is also likely that these residents are at the highest risk of dropping out of therapy, and facilitators should monitor their therapeutic progress particularly closely.

Theoretical Implications

Theoretically, this study also has a number of implications. Its findings have much in common with early work by Gunn et al (1978), which showed that there are significant changes in relevant personality characteristics following therapy, including levels of reduced anxiety and depression, and positive changes in the attitudes of TC members towards authority figures. Genders & Player (1995) confirmed some of these findings as well as finding an increase in self-confidence and a higher degree of tolerance towards other people. However, it should be noted that these studies were only showing change in residents on a variety of cognitive and social factors, they were not demonstrating that a corresponding behavioural change had taken place. It has been shown that measures of self-esteem, anxiety or depression appear to fall within the minor, rather than the major, set of criminogenic risk factors (Andrews & Bonta, 1994; Newton, 2000). By using a scale including offence paralleling behaviours, and demonstrating a shift from the dysfunctional to the functional, this study has attempted to show not just that *a* change has taken place, but rather that an '*offence relevant'* change has taken place (Jones, 2000).

More broadly, the study shows the fundamental advantage of the action systems approach in its attempt to account for the highly heterogeneous factors that can be associated with behaviours. The diversity of these factors has led to Yalom (1985) describing therapy as "a deeply human experience, and, consequently, there are an infinite number of pathways through the therapeutic process" (p.4). Whilst this study has confirmed this viewpoint to a certain extent, by showing that individuals exhibit different patterns of behaviour throughout therapy, it has also shown that the identification of a general group level process *is* possible, and theories attempting to describe therapeutic change can be successful.

Methodological considerations

As a secondary data source, case file analysing imposes certain limits, such as errors in the recording of the information. It is entirely possible that residents exhibited some behaviours which were not recorded by the facilitator, and hence were not coded for the purposes of the study. Now a behavioural checklist has been created, more accurate data could be obtained by recording behaviours during sessions as and when they occur. Other problems exist with the use of a secondary data source, many of which have been identified elsewhere (Miller & Fritzon, in press).

Directions for future research

A development of the results from this study would be to examine similarities and differences between individuals, in terms of their behavioural profiles and against other aspects of their behaviour, offence related and otherwise. For example, it would be of interest to see whether an individual's index offence determines their style of interpersonal functioning and therapeutic change. This suggestion has been made by Jones (2004) in relation to offence paralleling behaviour (OPBs) with explicit reference to the methodology employed in the present study, and to previous action systems studies.

Conclusions

The results of this study provide support for the TC model, as well as demonstrating the appropriateness of the action systems framework for examining the nature and function of both positive and negative therapeutic behaviours. It provides plenty of avenues for future research in terms of understanding the underlying dynamics of both criminal and non-criminal behaviours within an individual and goes one step further in providing a way of measuring and understanding therapeutic change.

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Table 1: Therapeutic Behaviours

Variable Name	Description
Unauthorised Absence	This was coded if the resident does not attend therapy and no valid excuse is provided (e.g. doctors visit, attending an educational workshop, illness etc.) It is also coded when a resident arrives late for a session and is unable to, or does not attempt to, provide an adequate reason for his lateness
Distance	This is coded when a resident pulls his chair 'out of the circle' in therapy, in order to create physical distance from the group.
Confess	This is coded when an individual reveals information about his life or his past; especially his fears and problems or fantasies which he regards as private and personal. It also refers to occasions when a resident reveals and shares personal information even though such revealing and sharing may be difficult or painful.
Questions	This is coded when a resident questions another group member in order to draw out more information about a particular element of the group member's history or behaviour.
Advice	This is coded when an individual offers constructive advice to another group member on how to deal with a problem or situation.
Accept	This refers to when an individual accepts or agrees with the feedback given to him by another group member.
Disagree	This refers to when an individual disagrees with and contests the feedback given to him by another group member (NB this was *not* coded when the feedback itself was clearly fatuous or inappropriate).
Anger	This is coded when an individual displays visible signs of anger, such as: shouting, swearing, becoming physically agitated and 'turning red in the face'.
Peace	This is coded when an individual either a) attempts to make peace between two other group members who are having a disagreement, or b) attempts to calm down another group member who has left the room following such an altercation, and persuades them to return to the therapy group.
Withdrawn	This is coded when an individual exhibits behaviours such as: remaining silent throughout the session, sitting with his head down and avoiding eye contact with other group members, staring off out the window etc. and not engaging in therapy in any way.
Contribute	This is coded when an individual contributes to an ongoing discussion by relating a personal incident to the group that is relevant to the discussion.
Argue	This is coded when an individual gets into an extended argument with another group member. Minor disagreements are not coded.
Leave	This refers to an individual leaving the room during the therapy session (unless it is for a practical reason, such as to use the toilet or to collect various papers etc.)
48 Hours	This is coded when an individual threatens to "apply for his 48 hours", that is, to leave the TC altogether.
Anti-staff	This is coded when a resident displays hostility and anger towards staff members, generally through a verbal tirade, although occasionally through 'acting up' to the facilitator.
Avoids	This is coded when a resident refuses to answer a direct question during therapy, or else will not speak about his offence or history when asked. It also refers to incidents where an individual attempts to divert attention from therapeutic discussion by bringing up irrelevant topics of conversation (such as the cleanliness of toilets on family visits, favourite TV programmes etc.)
Support	This is coded when a resident offers support towards another resident. More empathic than 'advice', it refers to incidents where a more 'emotional' support is given, such as: the resident offers to stay behind after therapy in order to comfort a distressed group member, the resident offers to help other group members during his free time outside of therapy, the resident expresses physical comfort and support towards another resident, by touching them in a comforting manner.
Drama	This is coded when a individual displays a 'dramatic outburst'. These may

	include: a sudden outburst of extreme emotion, coupled with standing up, pushing his chair back, throwing objects around the room, punching the wall/himself.
Rant	This was coded when an individual launched into a lengthy tirade about the TC, prison system in general, or British Justice system. It was only coded when the facilitator had noted the individual monopolised the session with this 'rant' and was not open to a constructive discussion.
Lie	This is coded when an individual either: a) directly contradicts himself, generally with reference to events surrounding his index offence, or b) tells unfeasible stories that are clearly fabricated (an example being one resident who claimed to have owned a fleet of rolls royces despite this clearly being beyond his means).
Grandiose	This is coded when individuals monpoloise sessions with attention-seeking and self-centred behaviours, generally in the telling of long, self-aggrandising stories about their past.
Blame	This is coded when individuals blame others for either their index offence, or the length and nature of their prison sentence (e.g. the victim, the police, the social services, the governor of their last prison etc.)
Cry	This is coded when a resident breaks down in tears during a session.
Distress	This is coded when a resident shows signs of obvious emotional distress during a session, such as: choked, tremulous voice, periods of being unable to continue speaking, shaking hands, 'welling up' (short of actually crying).
Tense	This is coded when an individual shows signs of obvious tension and discomfort during a session, such as: clenched jaw, rigid posture and folded arms, gripping the sides of the chair.
Instil	This is coded when a resident a) comments upon the fact that other group members have improved or are improving or, b) comments on how the group can be of help to its members in working towards their goals
Gesture	This is coded when a resident gesticulates animatedly during the course of therapy
Help	This is coded when an individual asks the group to provide him with help, advice or support.
Inappropriate	This is coded when a resident gives inappropriate advice or feedback to another group member, such as suggesting an act of violence or aggression, or something else which would encourage the other to act in an anti-social manner.
Fidget	This was coded when an individual fidgeted throughout a session, generally by moving about on his chair, or touching his face or neck in an agitated manner.
Catharsis	This is coded when an individual releases feelings (leading to relief) within the group (either of the past or here-and-now material); or else expresses feelings such as anger, affections, sorrow and grief, which had previously been difficult or impossible to release.
Paternal	This is coded when a resident either a) takes responsibility for another group member by checking up on their well being, defending them from other members, or helping them answer difficult questions, or b) takes control of the group in a 'benign' fashion, by making sure everyone gets opportunities to speak and challenging bullying.
Dominate	This is coded when a resident dominates a session by interrupting others and not allowing anyone else to contribute.
Apologise	This is coded when an individual apologises to the group for his behaviour.
Disrupt	This is coded when an individual disrupts a therapy session by: swinging on his chair, attempting to have a private discussion when another resident is speaking, or else sniggering and whispering during another group member's story.

Table 2: Summary of results of paired-samples t-test

	Time One Mean	Time One Std. Deviation	Time Six Mean	Time Six Std. Deviation		t	Sig. (2-tailed)
Tense	**3.835**	**6.132**	**1.015**	**2.364**		**2.399**	**.023[1]**
Cry	2.362	6.658	.482	1.479		1.573	.127
Accept	3.574	4.536	5.125	10.875		-.798	.431
Distress	**2.726**	**4.295**	**7.112**	**10.451**		**-2.352**	**.026[1]**
Confess	14.003	19.736	12.689	16.519		.274	.786
Lie	.414	1.593	.222	1.217		.511	.613
Argue	**0.456**	**1.634**	**3.834**	**5.935**		**-3.154**	**.004[3]**
Gesticulate	.476	2.608	0	0		1.000	.326
Disagree	1.966	5.081	2.659	7.785		-.427	.673
Drama	.139	.761	0	0		1.000	.326
Distance	**5.153**	**12.216**	**.300**	**1.317**		**2.155**	**.040[1]**
Withdrawn	**6.115**	**8.965**	**2.472**	**4.817**		**2.305**	**.029[1]**
Fidget	1.401	2.827	.278	1.521		1.856	.074
Avoids	**4.372**	**7.657**	**.976**	**3.159**		**2.219**	**.034[1]**
48hrs	.100	.548	.417	2.282		-1.000	.326
Leave	0	0	1.315	4.319		-1.667	.106
Disrupt	.603	1.918	.333	1.826		.542	.529
Support	2.116	3.944	5.550	18.644		-.987	.332
Catharsis	.088	.480	1.414	6.253		-1.155	.258
Paternal	0	0	.185	1.014		-1.000	.326
Grandiose	**2.343**	**5.047**	**.492**	**1.995**		**2.125**	**.042[1]**
Instil	1.064	2.812	.583	2.429		.677	.504
Advice	**6.007**	**10.156**	**12.485**	**13.803**		**-2.188**	**.037[1]**
Anger	3.832	6.514	3.207	7.468		.312	.757
Contribute	**21.723**	**22.621**	**6.032**	**9.088**		**3.540**	**.001[3]**
Unauthorised absence	**.516**	**1.589**	**7.691**	**16.262**		**-2.404**	**.023[1]**
Inappropriate	.880	2.318	1.714	6.193		-.762	.452
Dominate	**3.513**	**6.394**	**.830**	**2.560**		**2.122**	**.043[1]**
Rant	.794	3.269	1.415	4.304		-.606	.549
Help	.088	.480	1.111	6.086		-.916	.367
Questions	**6.409**	**10.421**	**13.776**	**14.276**		**-2.104**	**.044[1]**
Blame	**1.935**	**3.686**	**0**	**0**		**2.875**	**.008[2]**
Peace	1.162	4.708	1.222	4.672		-.049	.926
Apologise	.396	1.245	0	0		1.740	.092
Antistaff	.733	2.279	.795	2.919		.088	.930

[1]$p<.05$
[2]$p<.005$
[3]$p<.001$

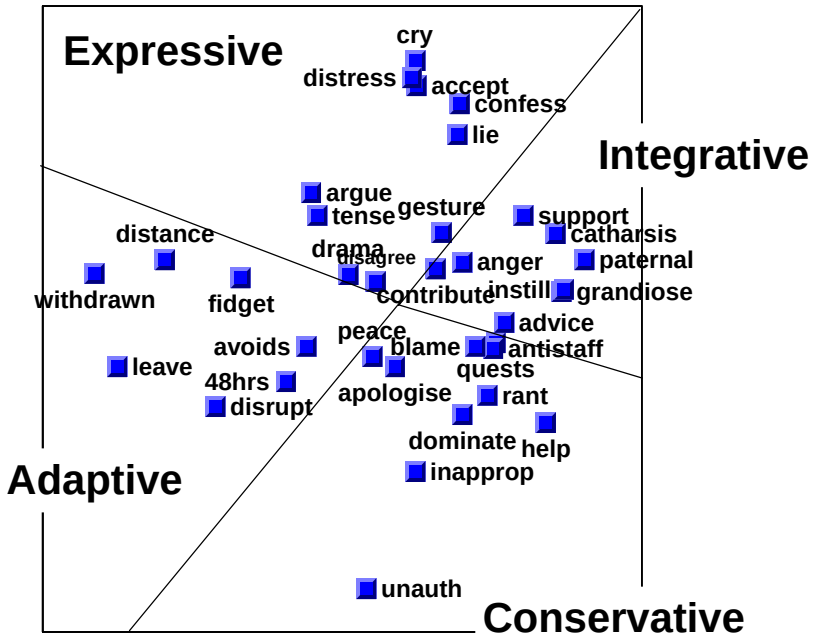

Figure 1 SSA showing action system themes in therapeutic behaviours

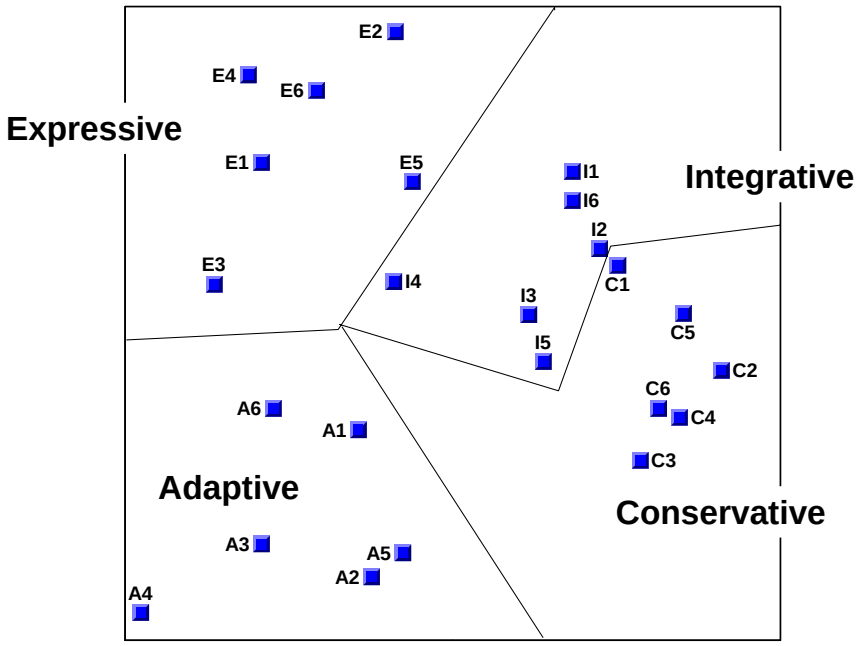

Figure 2 SSA showing action system themes in action system behavioural frequencies at different points in therapy

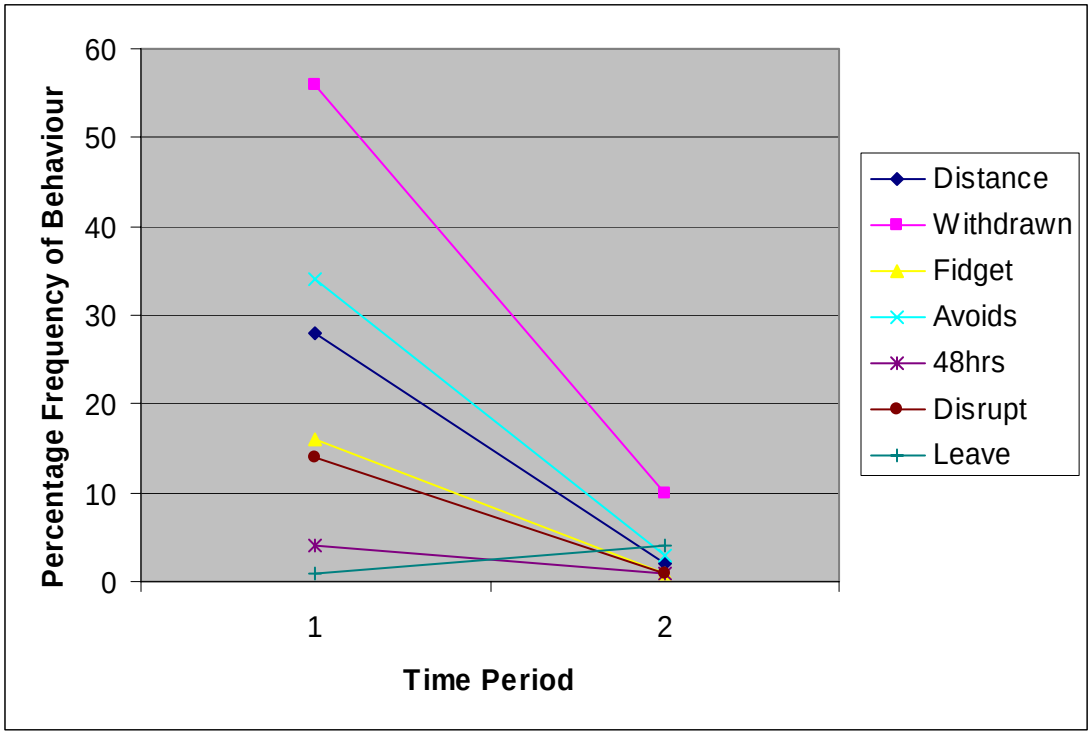

Figure 3 Graph showing the percentage frequencies of adaptive behaviours at time one and time six

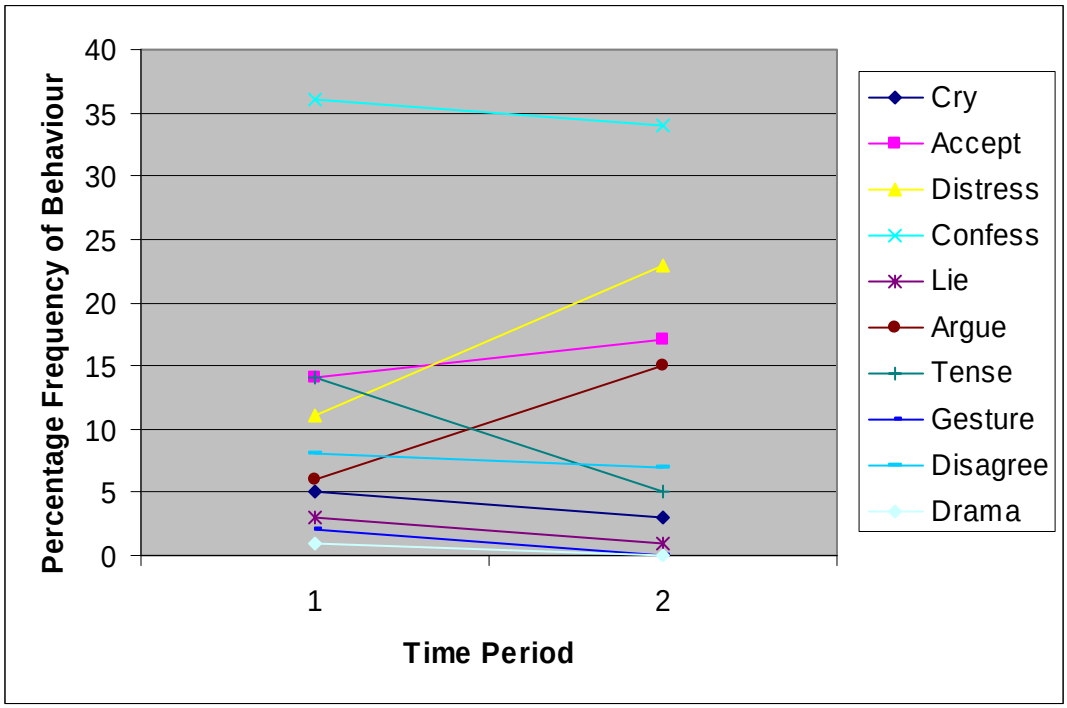

Figure 4 Graph showing the percentage frequencies of expressive behaviours at time one and time six

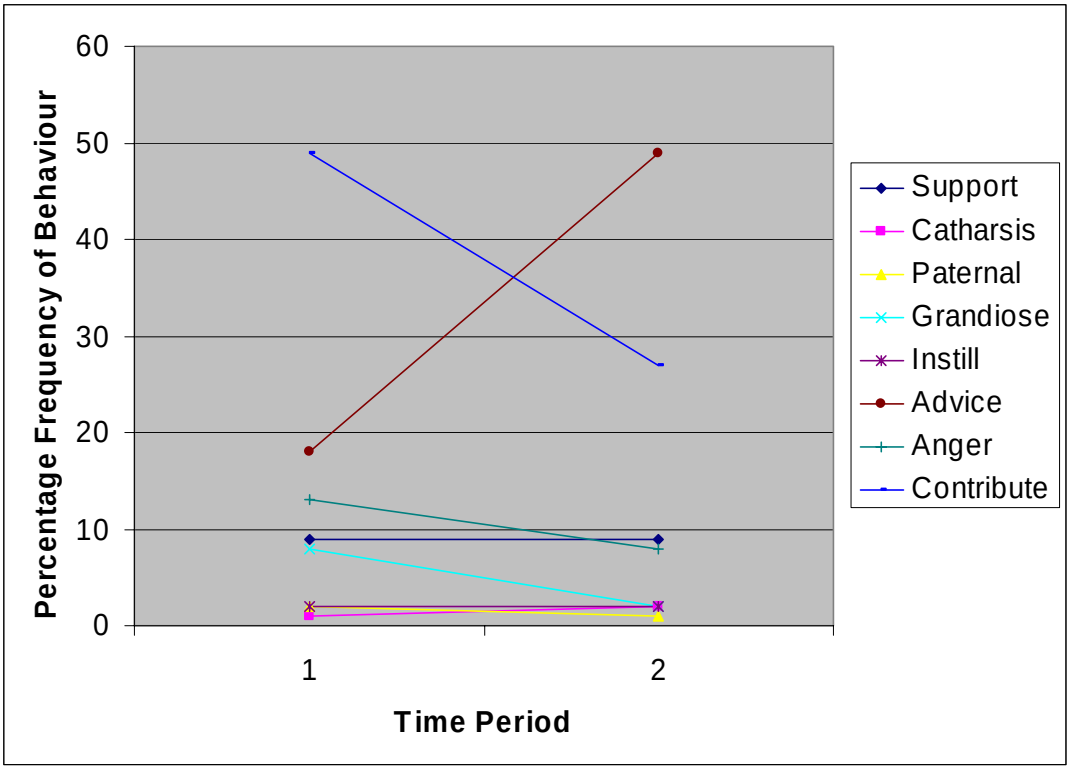

Figure 6 Graph showing the percentage frequencies of integrative behaviours at time one and time six

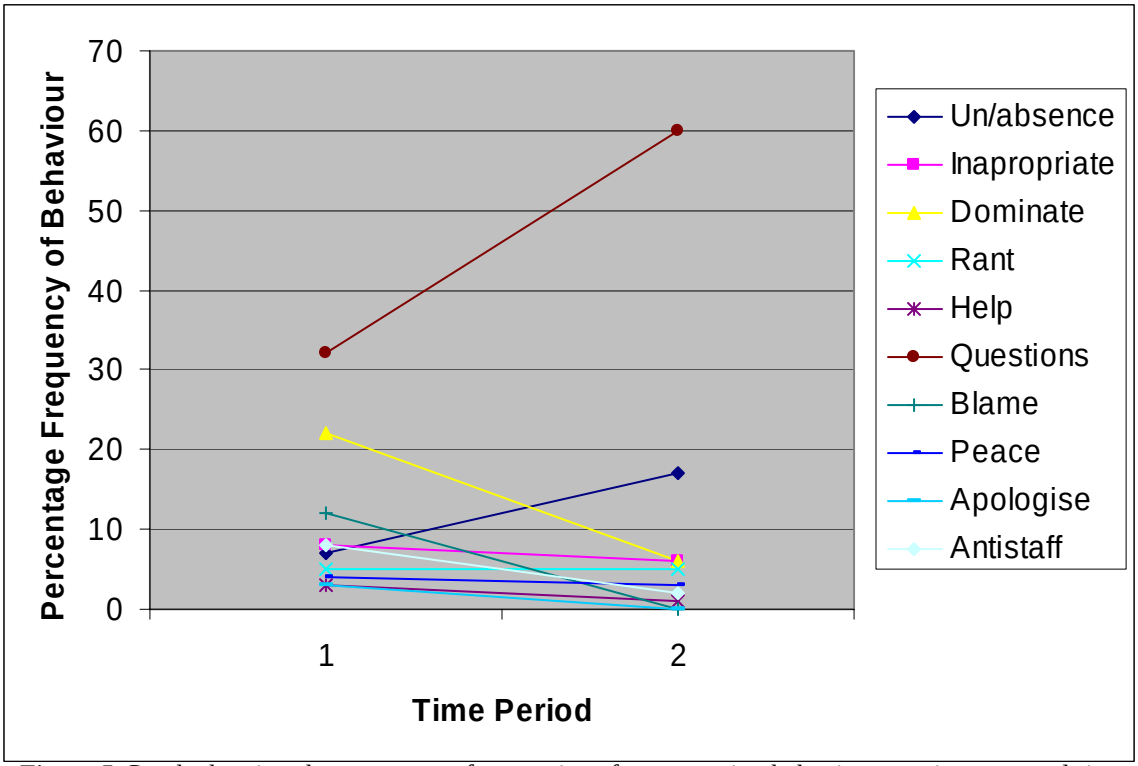

Figure 5 Graph showing the percentage frequencies of conservative behaviours at time one and time six